

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

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1. (currently amended): A method for providing a cryptographic service utilizing a server on a network, comprising:
 - (a) identifying a client utilizing the network;
 - (b) establishing a first key;
 - (c) generating a tunnel on the network;
 - (d) receiving information at the server from the client utilizing the tunnel, wherein the information is encrypted by the client using the first key; and
 - (e) performing ~~work~~ the cryptographic service at the server for the client.
 2. (original): A method as recited in claim 1, wherein a second key is encrypted by the client using the first key, and further comprising receiving the second key at the server.
 3. (currently amended): A method as recited in claim 2, wherein the second key comprises at least one parameter for the ~~work~~ cryptographic service performed by the server.
 4. (canceled)
 5. (currently amended): A method as recited in claim 1, wherein the cryptographic service ~~work~~ includes modular exponentiation.

6. (currently amended): A method as recited in claim 1, further comprising the step of transmitting cryptographic service~~work~~ results to the client.
7. (currently amended): A method as recited in claim 6, further comprising: the step of encrypting the cryptographic service~~work~~ results utilizing the first key.
- a⁵ 8. (currently amended): A method as recited in claim 6, wherein the cryptographic service~~work~~ results are transmitted to a third party.
9. (currently amended): A method as recited in claim 1, further comprising the step of charging a fee for the cryptographic service~~work~~ performed by the server.
10. (original): A method as recited in claim 9, wherein the fee is charged to the client.
11. (original): A method as recited in claim 1, wherein the first key comprises an encryption key for a symmetric cipher.
12. (original): A method as recited in claim 1, wherein the first key comprises an encryption key for an asymmetric cipher.
13. (currently amended): A computer program embodied on a computer readable medium for providing a cryptographic service utilizing a server on a network, comprising:

- (a) a code segment for identifying a client utilizing the network;
- (b) a code segment for establishing a first key;
- (c) a code segment for generating a tunnel on the network;
- (d) a code segment for receiving information at the server from the client utilizing the tunnel, wherein the information is encrypted by the client using the first key; and
- (e) a code segment for performing the cryptographic service work at the server for the client.

14. (original): A computer program as recited in claim 13, wherein a second key is encrypted by the client using the first key, and further comprising a code segment for receiving the second key at the server.

15. (currently amended): A computer program as recited in claim 14, wherein the second key comprises at least one parameter for the cryptographic service work performed by the server.

16. (canceled)

17. (currently amended): A computer program as recited in claim 13, wherein the cryptographic service work includes modular exponentiation.

18. (currently amended): A computer program as recited in claim 13, further comprising a code segment that transmits the cryptographic service work results to the client.

19. (currently amended): A computer program as recited in claim 18, further comprising a code segment that encrypts the cryptographic service~~the work~~ results utilizing the first key.
20. (currently amended): A system for providing a cryptographic service utilizing a server on a network, comprising:
- (a) logic for identifying a client utilizing the network;
 - (b) logic for establishing a first key;
 - (c) logic for generating a tunnel on the network;
 - (d) logic for receiving information at the server from the client utilizing the tunnel, wherein the information is encrypted by the client using the first key; and
 - (e) logic for performing the cryptographic service~~work~~ at the server for the client.
21. (currently amended): A method as recited in claim 3, wherein a message or a cyphertext comprises a second parameter for the cryptographic service~~the work~~ performed by the server.
22. (original): A method as recited in claim 21, wherein the message or cyphertext has been blinded by the user before transmittal to the server.
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